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Γηριατρική Εκπαίδευση για Μη-Ιατρικές Ομάδες Ενδιαφέροντος: Συστηματική Ανασκόπηση και Στρατηγικές Προοπτικές για την Ελλάδα, στο πλαίσιο της Ευρωπαϊκής Δράσης COST "*PROmoting GeRiAtric Medicine in countries where it is still eMergING*" (PROGRAMMING CA21122)

Geriatric Education for Non-Physician Stakeholders: Systematic Review and Strategic Prospects for Greece, within the European COST Action "*PROmoting GeRiAtric Medicine in countries where it is still eMergING*" (PROGRAMMING CA21122)

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Στους παππούδες μου, *π. Ιωάννη*, *Τάκη* και *Νίκο*

και

Στις γιαγιάδες μου, *πρ. Ελευθερία*, *Νότα, Εμμέλεια* και *Βούλα*

Abstract

The rapid increase in Greece's aging population has underscored an urgent need for specialized geriatric[1] education to support comprehensive healthcare services tailored for senior citizens. This study examines the involvement of non-physician stakeholders—such as nurses, social workers, pharmacists, strategic and entrepreneurial administrators, and policymakers—in developing geriatric education initiatives and assesses their role within the framework of the European COST Action (CA) 21122, PROGRAMMING. Following PRISMA guidelines, a bibliographic search was conducted in Google Scholar, Scopus, and PubMed using inclusion/exclusion criteria isolated to primary studies published after 2013. FLUSH. It involved various approaches such as stakeholder and networking effects, and roles of geriatric education from diverse perspectives, with a synthesis of nine identified studies. It is evidenced from the present study that non-physician stakeholders play a pivotal role in older patient care delivery through dynamic teamwork, voice for older patients, and policymaker participation in closing essential care gaps. Their active networking increases the positive perception of geriatric endeavors in the society hence facilitating the implementation of more receptive age-related policies. Nevertheless, due to the refrained systemic growth of affluent human resources, characteristically constrained funding, and inadequate geriatric training amongst Greek medical personnel, these stakeholders are not optimally incorporated into the Greek healthcare environment. These findings corroborate other studies, focusing on the purposes of interdisciplinary cooperation in addressing knowledge gaps, as conducted in other European settings. Thus, the study suggests that Greece should employ the CA 21122 when advancing geriatric education based on the multi-component, collaborative structure that involves non-physician members. Measures of this type might increase the quality of personnel preparedness for geriatric practice, improve the quality of life and population health among older patients, and promote creating an efficient, safe, and sustainable healthcare environment in the context of demographic changes in Greece.

Keywords: Geriatric education, initiatives, non-physician stakeholders, interprofessional collaboration

[1] The medical specialty that focuses on the health and well-being of older adults. Geriatrics plays a crucial role in shifting the focus of elderly care toward an integrated, person-centered system that emphasizes functional capacity, preventive strategies, and age-friendly services (Kotsani et al., 2021; Cesari et al., 2024).

Περίληψη

Η ταχεία αύξηση του γηράσκοντος πληθυσμού στην Ελλάδα έχει αναδείξει την επείγουσα ανάγκη για εξειδικευμένη εκπαίδευση στη γηριατρική[2], ώστε να υποστηριχθούν οι ολοκληρωμένες υπηρεσίες υγειονομικής φροντίδας για τους ηλικιωμένους. Η παρούσα μελέτη εξετάζει τη συμμετοχή μη-ιατρικών ομάδων ενδιαφέροντος—όπως νοσηλευτών, κοινωνικών λειτουργών, διοικητικών, στρατηγικών και επιχειρηματικών αρμοδίων, αλλά και υπευθύνων χάραξης πολιτικής—στην ανάπτυξη πρωτοβουλιών εκπαίδευσης στη γηριατρική και αξιολογεί τον ρόλο τους στο πλαίσιο της Ευρωπαϊκής Δράσης COST CA21122, PROGRAMMING. Με τη χρήση της μεθοδολογίας PRISMA, πραγματοποιήθηκε συστηματική ανασκόπηση στις βάσεις δεδομένων Google Scholar, Scopus και PubMed, εφαρμόζοντας συγκεκριμένα κριτήρια ένταξης και αποκλεισμού και εστιάζοντας σε πρωτογενείς μελέτες από το 2014 και μετά. Η ανάλυση περιελάμβανε ποικίλες προοπτικές σχετικά με την εκπαίδευση στη γηριατρική, με τους ρόλους των φορέων καθώς και με τις επιπτώσεις της δικτύωσής τους, συνθέτοντας τελικά ευρήματα από εννέα επιλεγμένες μελέτες. Τα αποτελέσματα δείχνουν ότι οι μη-ιατρικές ομάδες ενδιαφέροντος συμβάλλουν σημαντικά στη γηριατρική φροντίδα μέσω της διεπιστημονικής συνεργασίας, της συνηγορίας και της επιρροής σε πολιτικές, καλύπτοντας τοιουτοτρόπως κρίσιμα κενά σε αυτή. Η ενεργή τους δικτύωση ενισχύει τον κοινωνικό αντίκτυπο των γηριατρικών πρωτοβουλιών, προωθώντας μία θετική κοινωνική εικόνα της γήρανσης και ενθαρρύνοντας πολιτικές που συμπεριλαμβάνουν τους ηλικιωμένους. Στον αντίποδα όμως αυτής της συνεισφοράς, συστημικοί περιορισμοί όπως οι περιορισμένοι πόροι και η έλλειψη θεσμοθετημένης εκπαίδευσης στη γηριατρική, περιορίζουν την πλήρη ενσωμάτωση αυτών των φορέων στην υποδομή της υγειονομικής περίθαλψης της Ελλάδας. Τα ευρήματα συνάδουν με την υπάρχουσα έρευνα η οποία τονίζει την αναγκαιότητα της διεπιστημονικής συνεργασίας για την κάλυψη υπαρχόντων κενών επί της γηριατρικής μας γνώσης, όπως άλλωστε απεικονίζεται και σε αντίστοιχα ευρωπαϊκά πλαίσια. Η μελέτη προτείνει την αξιοποίηση του πλαισίου της CA 21122 για την εφαρμογή μεταρρυθμίσεων στη γηριατρική εκπαίδευση, ενσωματώνοντας μη-ιατρικές ομάδες ενδιαφέροντος σε ένα συνεκτικό και συνεργατικό μοντέλο φροντίδας. Τέτοιες πρωτοβουλίες θα μπορούσαν να ενισχύσουν τη γηριατρική φροντίδα, να βελτιώσουν την ποιότητα ζωής των ηλικιωμένων και να προωθήσουν ένα βιώσιμο και φιλικό προς τους ηλικιωμένους σύστημα υγείας το οποίο θα παραμένει ικανό να προσαρμόζεται στις δημογραφικές αλλαγές που θα βιώνει στο εγγύς μέλλον και η Ελλάδα.

Λέξεις-κλειδιά: Γηριατρική εκπαίδευση, πρωτοβουλίες, μη-ιατρικές ομάδες ενδιαφέροντος, διεπαγγελματική συνεργασία

[2] Ιατρική ειδικότητα που ασχολείται με την υγεία και την ευημερία των ηλικιωμένων. Η γηριατρική διαδραματίζει ουσιαστικό ρόλο στη μετατόπιση της εστίασης της φροντίδας των ηλικιωμένων προς ένα ολοκληρωμένο, ανθρωποκεντρικό σύστημα που δίνει έμφαση στη λειτουργική ικανότητα, τις προληπτικές στρατηγικές και τις φιλικές προς την ηλικία υπηρεσίες (Kotsani et al., 2021; Cesari et al., 2024).

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1. Introduction to Geriatric Education and Healthcare Needs in Greece

1.1 Overview of the Aging Population in Greece and the Increasing Demand for Geriatric Healthcare Services

The demographic situation in Greece is changing very dynamically and the group of older people is growing continually. It is by no means the only one of the phenomena observed in the context of economic transformation in Europe. In Greece, the population of senior citizens has grown significantly due to the elongation of the average life span, with the country's dependency ratios also increasing due to a shrinking youth population. Since the population has been having a longer life span, many people can get to old age and thus need the proper care that comes with old age. On one hand, there is a relatively rising demand with populations towards developing new programs and services called Geriatric care, which has been included as one of the key priorities of public health considering the aging population (Lamnisos et al., 2021).

Since the Greek population is demographically growing older it further increases the need for healthcare services for geriatrics. Older adults have unique and specific healthcare needs; they have higher rates of morbidity and mortality from chronic diseases and the prevalence of multiple comorbidities, dementia, and frailty. These reasons call for a systematic approach to managing healthcare that is not only episodic and curative but also comprehensive, chronic, and preventive. Geriatric demand services play a central role in managing older individuals' requirements since they might be vulnerable; they ensure their health needs are met, hence they can be independent and comfortable (Lamnisos et al., 2021).

However, despite the growing need for geriatric services, the delivery of the services raised certain challenges in Greece. Due to its critical nature, possibly the most significant problem is the lack of healthcare workers who have education and training in Geriatric Medicine. Although Greeks for many years have had a health care system, their model was primarily a disease and illness model rather than a disease prevention and illness management model as required in eldercare. It is due to this that there has been a research gap evidenced by a lack of matching healthcare needs and related services for the aging population. Medical education and training for family caregivers are still limited, and geriatrics has not been incorporated into the medical mainstream (Pappa et al. 2013).

The advancement in life also has been associated with a prevalence of chronic diseases like; cardiovascular diseases, diabetes, osteoporosis, and neurodegenerative disorders among others. From these, dementia and frailty could be seen as posing the greatest pressure on health systems. Patients such as those with dementia, need comprehensive care that cuts across the medical, social, and psychological aspects of human illness. Due to a diverse and challenging presentation of dementia, care is best provided by a team that involves caregivers, social workers, and other services provided in the community. Frailty likewise raises issues about mobility and independence issues related to physical functioning and disability, which address necessitate early and effective preemptive measures to prevent decline (Economou et al., 2017).

There is still a gap in the care of older people in Greece due to the lack of established Geriatric Medicine (GM) services and qualified practitioners, even though the country's healthcare system offers reasonably easy access to a variety of medical specialists and despite recent actions to strengthen Greek Primary Health Care. The act of caring for older patients does not always entail providing suitable geriatric care; geriatric medicine is a separate field (Cesari et al., 2024). These realities are a fact that must be taken into account in Greece: healthcare services should include not only curative but also preventive rehabilitation components. Primary health care services are essential for early diagnosis and nurturing of many age-related diseases, though the health facilities offering these services have a very poor preparedness to handle geriatric care due to inadequate training. Primary care clinicians working with older people can face challenges in managing the complex care needs of older people as a result of an inadequate understanding of geriatric syndromes. Hence, this leads to the long-overdue educational change to improve training in geriatrics at various levels of medical and allied health education (Sissouras et al., 2019). Empirically, the genuine necessity for a skilled workforce to address the specific needs of the aging population is evident, as well as the inability of systems to produce sufficient specialized personnel in the healthcare sector. Therefore, utilizing the existing workforce by equipping them with geriatric skills becomes essential.

In conjunction with the growth of diverse novel and complex healthcare necessitating older patients, there is also a demand for a social culture change towards older patients. In the past, aging has frequently been viewed as a process characterized by deterioration and helplessness or as a process that entails disengagement from the

workings of society and therefore offers fuel for prejudice against older patients. However, as indicated in the Decade of Healthy Ageing reports (World Health Organization, 2022) modern approaches towards older patients presuppose that these people may remain creative and efficient members of society. Such a positive aging movement supports new perceptions in published principles in confronting old age as a limiting factor for citizens, but rather energy is directed towards the abilities of the aged citizens. Health systems are expected to promote healthy aging by creating settings that can help older people to flourish (Sissouras et al., 2019).

What this shift means is change not only in the healthcare systems but in culture and society as a whole. Positive aging interventions and community campaigns require the elimination of negative age perceptions and the presence of pluralistic ones. The process is therefore the development of education within healthcare organizations and outside in the society. The older patient's potential and presence have to be illustrated to medical personnel, carers, and society in general to ensure that they construct spaces that are friendly and promoting to older patients (Sissouras et al., 2019).

Furthermore, it raises the influence of non-physician stakeholders that is exactingly important for geriatric care. Consequently, with the increasing dependence of the Greek aging population on healthcare services, intersectoral cooperation is essential. For example, other related and important healthcare stakeholders who can champion geriatric healthcare causes include social workers, policymakers, Non-Governmental Organizations, and community leaders, as well as older individuals themselves, who can contribute to the evolution and development of geriatric care by participating in medical research. These stakeholders are diverse in terms of perspective, and background, and their knowledge is crucial since senior citizens are faced with social, economic, and/or health issues (Economou et al., 2017).

The inclusion of these non-physician stakeholders in the medical system for healthcare planning and delivery improves the ability of the system to address the needs of the older population. The authors identified that effective intersectoral cooperation between healthcare service providers and other community organizations is important to work for the establishment of age-friendly policies and accessibility of services, as well as to provide for the heterogeneous needs of the older populace. For instance, community-based promoters of health care and linked community support interventions

such as counseling and social inclusion delay the number of older people requiring intensive health care services (Fisk, 2022).

The people in Greece are aging, and this is an advantage and a disadvantage when it comes to the healthcare system. The current trend of expanded utilization of healthcare services among geriatric patients[3] shows that there is a growing need for a specialized skilled workforce and healthcare services that are based on geriatric principles as well as cater to the needs of older citizens. In this process, the expanding participation of actors unrelated to the physician profession in geriatrics education and care also attests to a more expansive view of the need for collaboration and communitarian work in crafting a healthier aging framework. Sustaining the quality of life of Greeks in old age may be achieved through various educational campaigns, healthcare interventions, and cultural changes in the Greek context to improve the quality of life of inhabitants who are older adults (Lamnisos et al., 2021).

1.2 Importance of Geriatric Education in Addressing the Challenges of Aging Societies

With people living longer than ever before, geriatric education is perhaps needed now as it has ever been before. The societies that are experiencing the aging population issue have special problems that need appropriate expertise and competencies to ensure that the older citizens of these societies are well taken care of. Geriatric education provides conceptual tools by which the health workforce, carers, and societies as a whole, can appreciate the challenges posed by increasing age. It helps meet the increasing need for health and social services; as well as creates a welcoming atmosphere for seniors where they can be encouraged to live healthy, productive, and safe lives. It is significant and/or crucial to note that geriatric education defines the contours - the nature and capacity, quality, and sophistication - of the response to these challenges, and that includes concerning destigmatizing age, particularly old age (Hesselink et al., 2019).

When the number of people increases the aging population, societies are likely to manifest one or more diseases that are more common in older people than the young and middle-aged. Some conditions include; cardiovascular diseases; diabetes;

[3] Older patients who exhibit lower homeostatic capacity, atypical illness presentation, multimorbidity and polymedication, psychosocial vulnerability, and geriatric symptoms, such as frailty and loss of autonomy, are referred to as geriatric patients (Kotsani et al., 2021).

osteoporosis; neurodegenerative disorders; and some types of cancer among others. It has been stated that geriatric education is essential to prepare these healthcare providers for challenges in comprehensively addressing these chronic diseases with a holistic and person-centered tailored approach as well as management over an extended period. Also, costs have increased due to the augmented healthcare needs usually coming with older age, the loss of autonomy, and the inappropriate healthcare services' use, implying that more people are likely to develop old age-related mental disorders such as dementia in addition to the fact that the population in the US is aging, thus calling for specialized knowledge in managing their health issues. Geriatric and gerontological education aims to enable healthcare professionals and carers to have the necessary tools for understanding the needs of the population at stake.

Gaining knowledge about older patients is not a concern of the health care sector alone However, below are some reasons why geriatric education should be extended to other areas. People of a certain age are at a predisposed risk of facing numerous social, psychological, and economic problems that would determine their functional ability[4]to live. Such obstacles as loneliness, lack of movement, social isolation, and economic vulnerability. Geriatric education program provides knowledge in geriatrics needed to enhance services for older patients to support birds, social workers, psychologists, and policymakers. The principles demonstrated in this approach make a client's care more person-centered and comprehensive, which is particularly suitable for the older population (Michel & Cha, 2015).

The situation in Greece can be explained by demands on the healthcare system as a result of the increasing number of senior citizens, this healthcare has been highly acute–oriented rather than geriatric. More and more people are getting older and this means that there is a need for health facilities and healthcare practitioners specialized in geriatrics, or at least being familiar with the basic GM principles. Growing a body of knowledge and practice in geriatric care and education is essential in narrowing this knowledge and practice gap. Such schemes have to be developed to educate not only medical doctors but also nurses, physiotherapists, occupational therapists, and other categories of healthcare workers in the principles of geriatric medicine. If geriatric principles are not integrated into the current and future medical as well as allied health

[4] Functional ability, as defined by WHO (2020), "is about having the capabilities that enable all people to be and do what they have reason to value".

curricula, future healthcare providers may never encounter the reality of an aging population. In this regard, geriatric education can help unveil the factors that influence aging and health issues in older adults and provide suitable approaches that will empower all healthcare providers to meet the multiple needs of seniors (Boltz et al., 2024).

Two other goals of geriatric education are the elimination of ageist practices and the modification of society's conceptions of aging. Traditionally, aging has been defined in many societies as a process of the deterioration as well as social marginalization of the individual. Such perceptions of aging produce the prevalence of negative attitudes towards seniors and increase prejudices that subordinate older patients to new types of total institutions and represent them as useless for society. Geriatric education thus forms a key in overcoming these stereotype depictions as older patients have abilities and skills and continue to contribute to society. This positive aging movement works contrary to the unstated notion that post-retirement is a means of existing in waiting, rather it assumes that aging is a path of growth and engagement (Chen, 2020).

Education is one of the key leverage mechanisms to bring about this kind of change in perspective. There is always a better chance of creating awareness when all healthcare professionals, caregivers, and society as a whole, understand the truth and significance of older patients. Geriatric education, therefore, is not just a tool for enhancing services for older patients but also brings about cultural change. Thus, geriatric education may facilitate the improvement of the acceptance of older people and increase the target society's respect for elderliness (Tohit & Haque, 2024).

Also, given the growing incidence of multifactorial disorders which are increasingly present in the aging population, there is an even greater need for education on issues of geriatrics. Co-ordinated care that recognizes both physical and psychological support, is therefore essential to combat these conditions for persons living with frailty. Geriatric education helps providers involve multiple caregivers in the care of older patients so that patient-centered care is provided. This has apart from enhancing health council health outcomes also enabled senior citizens to have a better quality of life. Likewise, patients with dementia may need help that does not only include medical attention but also incorporates attention to aspects of compassionate, social as well as conductive care. Geriatric education prepares the caregiver and

healthcare service givers on how best they can appropriately manage their patients through the total person care concept, which promotes the value of the persons with dementia (Hesselink et al., 2019).

Equally crucial is the participation of stakeholders in the broad sense, other than physicians, in the call for geriatric education. Both the government and the local authorities, as well as educators and business people, are all key stakeholders in developing and sustaining institutional and community-based programs to cater to aging societies. It is highly important to note that older individuals are also part of these key stakeholders since they are involved in policy decision-making and participate in therapeutic education programs, fostering self-empowerment for the management of their conditions. This is the constituency that is most actively involved in the creation of geriatric education policies and the implementation of geriatric educational interventions across the undergraduate, postgraduate, and continuing education continua. This way, non-physician stakeholders can facilitate the collaboration of healthcare providers, academic institutions, and governmental agencies and make geriatrics education a prerequisite for the healthcare system.

Moreover, geriatric educational interventions offer the possibility to older persons within the framework of policy development regarding creating an effective model that improves well-being among the senior population. Such policies could concern programs and actions being taken to increase the availability of and access to healthcare; enhance the quality of life for older people; or facilitate the growth of services in communities that assist older patients to live as comfortably as possible without full assistance. A major function of geriatric education is also as a training ground for professionals who will fight for the rights of older patients, including their engagement in the formulation of policies and ensuring that older patients are considered an important segment that needs healthcare services (Michel & Cha, 2015).

2. Non-Physician Stakeholders in Geriatric Medicine

2.1 Definition and Identification of Non-Physician Stakeholders

Consequently, non-physician stakeholders' contribution is critical in geriatric care in defining the nature of healthcare needs among older patients that will inform the value of the healthcare system in managing the clinical and social care needs of older patients. Since there is a growing need for extended geriatric care resulting from an increasing population, the role of these stakeholders is very crucial. They allow the promotion of a team approach which is essential in meeting the multiple and often interacting physical, psychological, and social needs of older patients. This means that recognition and incorporation of these non-physician professionals into geriatric practice can go a long way in enhancing care delivery among these seniors and generally enhancing the perception people hold about aging (Grundy et al., 2013).

Non-physician stakeholders can be defined as a wide range of broad categories of "players" who have an interest (direct or indirect affiliation) in the welfare of older people. Among these, the most engaged in direct patient care are nurses who act primarily as mediators between older patients and healthcare services. Nurses specialized in geriatric care cater to older patients' health issues that are common with aging clients including chronic disease management, medication regime, and end-of-life care. They are not limited to clinical activities, because they are also charged with patient and family therapeutic education. Nurses have the responsibility of ensuring that the needs of senior citizens are well represented and fully understood and met with the number one goal being the promotion of patients' rights to person-centered care (Fisher, 2019).

Another group of non-physician stakeholders includes social workers. They play an important role in caring for older patients because they provide much-needed solutions to different psychosocial economic challenges associated with old age. They help to manage interprofessional relationships with other carers, families, and providers of community support to encourage older patients to remain as long as possible in their own homes. Throughout this paper, senior citizens are defined as the target population in most cases because of the challenges that they are likely to encounter including physical disability, lack of transportation, and confusion when in need of services offered by social healthcare and other relevant bodies where social workers are most essential. In their practice, social workers promote the general welfare of older patients

by making sure that they receive needed services, financial support, and love (Phillips et al., 2023).

Pharmacists also play a vital role as non-physician stakeholders in geriatric care. Their expertise in medication management is crucial, particularly for older adults who often face polypharmacy challenges due to multiple chronic conditions. Pharmacists ensure the safe and effective use of medications by monitoring for potential drug interactions, adjusting dosages as necessary, and providing education on proper medication adherence. They also collaborate with other healthcare professionals to optimize therapeutic outcomes for older patients, considering the important STOPP/START criteria for potentially inappropriate prescribing in older people as well (O'Mahony et al., 2015; O'Mahony et al., 2023). Additionally, community pharmacists are often the most accessible healthcare providers, offering valuable guidance on over-the-counter medications and addressing patients' questions or concerns, making them indispensable allies in promoting the health and well-being of senior citizens (Newlon et al., 2023).

Another large category of non-physician stakeholders is the caregivers, whether paid or volunteer. Formal caregivers, such as home health aides and nursing assistants, within Elderly Care Units, nursing homes, retirement homes, or at-home care services, provide direct support to senior citizens in their homes or long-term care facilities. Their duties include assisting with daily living activities such as bathing, dressing, and meal preparation, as well as offering companionship. These caregivers spend most of their time with older patients, especially senior citizens, and keep the health experts informed of any change in the health status of their clients. Formal care can involve a professional who provides care, however, most often the care is provided by a family member or friend in an informal setting. They are crucial because they are constantly putting forth their efforts and are often included in the decision-making processes concerning older patients with dependency on activities of daily living. Professional and volunteer carers are also members of the essential geriatric care delivery system as they provide unique individualized care often essential to the older patient's densities and self-reliance. However, it is important to mention that caregivers often face serious risks of burnout due to the significant burden accumulated by the high demands and needs of their work. Additionally, in the contexts of unregulated work and migration, caregivers can hire

individuals who lack formal education or qualifications for the care of older patients (Fisk et al., 2024a).

Other important non-physician stakeholders include policymakers. They are charged with setting directions on public policies on subjects such as care options for seniors, the rights of seniors to quality care, and the quality-of-care seniors receive. Like in many other countries, the aging population in Greece offers numerous dilemmas which offer operational policies. Based on the demographic setting, there is a need to come up with policies to meet the needs of older patients including better access to medical care, training and expansion of education programs on geriatric affairs, and overall preparation of the healthcare systems to meet the demands of older patients by developing aging policies. It also applies to the health services delivered to long-term care residents like the nursing home, home care, and community support services. When adopting age-friendly policies, the authorities contribute to the fact that older patients can live as long as possible without requiring help and support from a caregiver (Grundy et al., 2013).

Another essential non-physician stakeholder that makes decisions in a healthcare facility is the administrators, especially for the healthcare facilities dealing with older patients. These people are employed to oversee and run different healthcare facilities since they are in charge of adopting efficient use of the available resources to provide some services or treatment. In the situation of geriatric care, there is a need to deliver health services to the increasing population of older patients by health administrators while working under scarce resources. Some of the major responsibilities are to coordinate the staff requirements, financial planning, and monitoring the protocols regarding service delivery for older patients. Furthermore, healthcare administrators are regularly engaged in strategic planning processes oriented at developing the availability of extended geriatric care, the quality of the older patient's health, and the experience they get in healthcare organizations. These are crucial in enhancing the healthcare system hardware that is needed to accommodate the increasing call for older patients' care (Phillips et.al, 2023).

Such non-physician stakeholders underline the complexity of these services to older patients pointing to the fact that has to involve many approaches. Collectively they enhance the courtyard's ability to offer comprehensive patient care that transcends

the disease model of physical health. The approach is multisectoral and especially relevant in tackling the social factors that influence the health of the older population. Socio-demographic characteristics, housing, and service environment influence the health of seniors. This imparts every community and care non-physician stakeholder a unique role to actively contend with these determinants and guarantee the proper holistic care of senior citizens (Bates et al., 2019).

Non-physician stakeholders therefore also come in handy in changing society's perception regarding aging. These are professionals who take most positions of supporting senior citizens and are normally involved in fighting for the change of perception concerning this group of people. This involves combating ageism and promoting the right to also respect older persons' healthcare and human rights. It is revealed that through political advocacy for age-friendly policies and environments, non-physician stakeholders help give independent older citizens a unique place and acknowledge them as valuable living-inspiring members of society (Bates et al., 2019).

2.2 The Role of Non-Physician Stakeholders in Geriatric Care and their Influence on Healthcare Delivery

Non-physician caregivers and other players play crucial roles in the provision of these older patients' healthcare services. As the population ages it becomes necessary that these professionals work in synergy to complement efforts that will go into providing optimal care to the patients. Combined, they impact healthcare service provision in ways that go beyond treatment; the provision of services targets aging individual concerns. All these stakeholders also contribute to fostering a healthcare culture that is senior citizen-friendly, cherished, respected, and wholesome for aged people by moving away from negative perceptions of aging (Malik et al., 2018).

Nurses, Social workers, Caregivers, Pharmacists, and other associated healthcare specialists are nevertheless involved with the provision of geriatric care because of their number one interface with patients. For instance, nurses are key in the promotion of care for older patients because seniors suffer from numerous health problems. Their roles in the delivery of health care services go beyond dispensing medical services and include teaching the patients as well as encouraging them, comforting them, and organizing their care needs. Nurses play a major role in identifying new and emerging directions in health and welfare at senior care especially the issues of chronic illness,

physical disability, and dementia among older individuals. The role they play with older patients and with their families makes them the best to offer care that meets the specific needs that older people have (Meier et al. 2021).

For instance, if we are focusing on the people who are living with dementia, the part of the caregiver and other healthcare staff becomes even more crucial. These stakeholders work to guarantee that creating the care plan for the patients is developed congruent to the other patients who suffer from a cognitive loss by being comprehensive and pertinent to the other patients as they evolve. This involves the management of clinical issues as well as organizing aspects of care that create a protective, empowering context for living. These professionals play a role in offering emotional and psychological support that is a key ingredient in the dignified life of the patient especially those residing in extended care homes (Newlon et al., 2023).

In the same manner, social workers determine how favorable the healthcare system is for ascertaining the non-health needs of older patients. They are experienced in assessing the social health needs that can dictate this kind of population's quality of life, such as employment status, service accessibility, and loneliness. Social workers play a central role in connecting those in the healthcare field with the communities to get seniors the services they need to maintain their health. It is not just their function to write the legal cases of interest and the protection of senior citizens but to contribute to policy development of senior-friendly environments. In focusing on enhancing the well-being of older persons beyond the strictly medical models of practice, social workers improve the quality of healthcare altogether, and other domains of life for seniors (Meier et al. 2021).

Hence both formal and informal caregivers are a very essential component of the caregiving team in geriatrics. Currently, home health aides and nursing assistants are projected to give essential care in activities of daily living among the older generation of the population. Their impact on the healthcare system is probably most noticeable in the detailed, one-on-one care commonly delivered, to patients who need support at their homes or in aged care facilities. The other important component of the healthcare system is informal caregivers they are mostly close relatives who look after their kin. These people are often involved in a core team that collaborates with other health professionals, to deliver the required care and support send so that seniors can

stay in their homes. One monetary benefit of caregivers overall is that they allow the healthcare system to reduce demand for higher levels of institutional care (Fisk et al., 2024b).

In this context, policymakers and healthcare administrators also have a very important gateway to influence the experienced geriatric care delivery by controlling the systems that stand behind it. How can lawmakers fulfill the requirements of the legislation and regulation to ensure that the healthcare system can address the requirements of an aging population? They influence both, the distribution of funds and set the policies related to care and the development of programs that involve older patients. Thus, the policies including increased availability of long-term care services or support for training of healthcare personnel knowledgeable in geriatrics directly influence the opportunities of improving relevant healthcare for older patients. They also focus on subject matters concerning all people within society including senior citizens who face challenges while aging, and economic constraints that are likely to affect the quality of care given to older patients by healthcare institutions (Fisk, 2022).

While healthcare administrators are the managers of geriatric care the professionals are responsible for the practical organization of this care. Healthcare administrators are directly responsible for staffing healthcare institutions, delivering care services, and managing facility resources. As it relates to geriatric care, there are dilemmas that administrators have to face, especially in handling patients who require care that is quite complicated. This involves not only knowledge of the healthcare system but also appreciating the role of all involved healthcare workers in managing the older population. Managers also have a part to play in managing the experience by employing structural practices that fashion a positive attitude toward aging and guarantee the rights of senior citizens (Fisk, 2022).

In addition to impacting the healthcare delivery to senior citizens, non-physician stakeholders remain instrumental in advocating for the changes that enhance general healthcare services. Primarily, their advocacy initiatives convey geriatric education, care service incorporation, and the establishment of healthcare frameworks for older citizens. These professionals are involved in advocating for the adoption of age-friendly practices in healthcare organizations which may include making healthcare organizations facilities more age-friendly or developing care flows that promote

preventive and rehabilitative care. In this way, non-physician stakeholders empower a better organization with healthcare while at the same time, making the system more responsive to the needs of older patients (Bates et al., 2019).

More so, non-physician participants also play a role in changing perception of the society towards aging. Such people help manage these expectations as well as demystify the pervasive negative views people have about aging. These features help create an image of older patients as worthy, active, and positively connected members of society, who can and should remain active members of society during their sunset years. This change of perception is important for seniors to be expected to participate in the productive lives of their societies instead of just being expected to wait for care. In this way, non-physician stakeholders enhance the discussion towards that position, which fosters aging as a respected and healthy process in society (Fisk et al., 2024a).

3. The Role of the European PROmoting GeRiAtric Medicine in countries where it is still eMergING (PROGRAMMING) COST Action (CA21122)

The European PROmoting GeRiAtric Medicine in countries where it is still eMergING (PROGRAMMING CA21122) stands for the unique attempt to meet the emerging needs of geriatric medicine in the states where it is still in its developmental stage. The COST (European Cooperation in Science and Technology) framework under which this initiative falls supports multilateral collaborative research and generates new knowledge among participating countries in Europe. PROGRAMMING CA21122 is predominantly centered on creating networks and education programs in the delivery of geriatric care to meet the existing challenges in areas where geriatric medicine is still in its developmental stage in several countries (Cost Programming, 2024).

This CA has one of its core aims to advocate for the implementation of geriatric considerations into health care systems with previously defined medical agendas. In most of the countries that have not developed geriatric medicine, their healthcare services focus on the acute care of the patients rather than the chronic, multidimensional care needed for the geriatric population. Such an approach may create discontinuity in the quality-of-care older persons receive especially those with multiple coexisting illnesses, frailty, and impaired cognition. PROGRAMMING CA21122 aims at reducing those disparities through the engagement of different stakeholders in the healthcare sector, lecturers, and policymakers to establish better practices in geriatric practice (COST, 2024).

One of the major activities of the implemented initiative is the educational activity and capacity-building. PROGRAMMING CA21122 understands that the scarcity of specialists with the specifications in the healthcare sector is a major challenge to enhancing the treatment services of senior citizens in most nations. To this end, the CA will seek to create contingency training curricula on basic geriatric principles for healthcare professionals that will include all cadres of the healthcare team including medical doctors, nurses, and allied healthcare professionals. (COST, 2024).

The implementation of CA21122 also aims at enhancing geriatric education by growing interdisciplinary Geriatric Education Interests. Multimorbidity and frailty which are common features in older patients entail a team approach in management and call for the involvement of different healthcare workers. Heeding the need to build a

network of physicians, nurses, social workers, caregivers, and policymakers respectively the CA seeks to develop an integrated model of geriatric care. The described studies demonstrate that the Structure-Process-Outcome (SCP) model is crucial in delivering multimodal care to meet the needs of senior citizens' social, psychological, and environmental determinants in addition to their medical needs (Veljanovski et al., 2024). Through its educational interventions, PROGRAMMING CA21122 seeks to influence society's perception of older patients within the health sector to embrace, appreciate, and empower them to demonstrate something special and also receive care commensurate to their age, needs and preference as stated by Veljanovski et al., 2024.

It also aims to use the networking capacity to enhance the social outcome of geriatric medicine. Another of the elements that are central to the working of the COST framework is the fostering of European cooperation and exchange of knowledge. PROGRAMMING CA21122 continues in this vein by supporting networks of stakeholders in different countries where one can share program information and other relevant developments including research findings and educational program materials. These networks are important in the growth of the specialty of geriatric medicine especially in those countries where the specialty is relatively new. Through supporting member countries' cooperation, the COST Action contributes to sharing the experience of those countries with a more developed geriatric care infrastructure to create similar programs in other areas (Duque et al., 2023).

Besides the formation of international partners, CA21122 PROGRAMMING also aims at developing local and national partners in the participating countries. It is through these networks that the implementation of the knowledge and skills, which have been developed and acquired through the COST Action at the local level is enhanced. Through integrating healthcare providers, policymakers, and academic institutions, the COST Action assists in the development of a harmonized approach to the care of older citizens. Local networks are also involved in the campaigning for more geriatric services as well as the mainstreaming of policies that augur the welfare of older patients (Duque et al., 2023).

Another major issue reviewed by PROGRAMMING CA21122 is the fact that the development of geriatric medicine varies across Europe. Thus, whereas there are many

nations with effectively developed programs for delivering geriatric care, other nations are still in the pre-processing stage. Such variations can result in the suboptimal form of care that senior citizens in some regions. To this end, the COST Action aims to work towards standardization of training among healthcare providers so that the countries in which geriatric care is still developing can be supplied with well-trained medical staff (COST, 2024).

4. Methodology

The main undertaking of this systematic review is to assess the involvement of non-physician actors in Greece in developing geriatric education in partnership with the larger European CA21122 research consortium PROGRAMMING (PROmoting GeRiAtric Medicine in countries where it is still eMergING). This COST Action is expected to advance geriatric medicine in Europe generally and in the emergent institutions in countries such as Greece. Therefore, this study aims to gauge the ability of non-physician actors including registered nurses, social specialists, caregivers, and the Department of Health Sector that contribute to the progress of geriatric education, with improvement in the networking in social-related acts.

The PRISMA method was deemed the most suitable for systematic review due to its rationality as a definite method for conducting the systematic review. PRISMA guidelines put into practice a clear and structured system of collecting, critically appraising, and combining data from various sources, ensuring for the study, a coherent, rigid, and credible process. This is so especially where the content analyzed is multidisciplinary as is the case with geriatric medicine where quite many players contribute to the phenomenon. Thus, due to its purpose to facilitate the identification of a broad array of findings relevant to the research questions, PRISMA was most suitable for the synthesis of the results of the studies investigating the non-physician roles and the networking processes in geriatric education, as it allowed for the targeted extraction of the data which are most relevant to the presented objectives of the study.

It also increases the study's reliability in avoiding selection bias, as well as the clear manner in which the PRISMA promotes the identification and exclusion of studies. The systematically developed stages of the PRISMA that embrace the process of selecting literature, as well as the assessment of the quality of each piece of literature used, contribute to the integrity of the approach to the study as it focuses heavily on non-physician stakeholders despite the existence of a gap in the education of geriatrics in Greece.

The databases used for this systematic review were Google Scholar, Scopus, and PubMed. Each of these databases was selected for its specific strengths in covering a broad spectrum of academic research relevant to healthcare, public policy, and education:

- **Google Scholar**: Offers general search among various disciplines as well as many sources, such as online communities or forums, which might be helpful when concerning stakeholders' roles and networking in geriatric education.
- **Scopus**: It is a comprehensive database for journals both in health and social sciences; various articles on healthcare practice, policy, and management encountered provide different outlooks on non-doctor constituencies.
- **PubMed**: One of the most helpful retrieval systems in the biomedical field, PubMed offers a vast amount of primary research findings on healthcare, patient care, and geriatric medicine. The integration of it guarantees that the systematic review captures primary medicine and health literature.

This selection enables a rigorous peer search using identified linked disciplines to the study objectives and constructs a diverse dataset regarding geriatric education and non-physician professions in healthcare networks.

Adopting the above development of criteria for inclusion and exclusion, the studies that formed the basis of the present review were selected based on the following parameters. The criteria are outlined as follows:

Inclusion Criteria:

- **Time Frame**: Only the articles published in international peer-reviewed journals from January 2014 till date were included. This timeframe enhances the reliability of the analysis regarding the inclusion of recent studies and trends and practices of geriatric education.
- **Relevance to Study Topic**: Thus, for further work to be included in the present analysis, it had to be directly connected to the field of geriatric education, participants, and healthcare networking. As regards the participants, for a study to be included in this research, the participants must be either non-physicians or both non-physicians and physicians, such as medical residents, since they still require supervision from an attending.
- **Study Type**: Original research studies, case studies, and quantitative and qualitative empirical research were adopted for review. Existing literature also points to

primary data as crucial for gaining a direct view of how stakeholders are positioned within the networking plans and the immediate effects of the networking efforts.

Exclusion Criteria:

- **Secondary Research**: Any review, systematic review, or meta-analysis was excluded from this study. These types of studies involve reviewing existing data and were not included in this study to avoid the replication of data.
- **Irrelevant Studies**: Papers that were not explicitly related to non-physician stakeholders in geriatric education or the Greek environment were also excluded.
- **Pre-2014 Studies**: Studies that published results from prior to the current decade were excluded due to possible changes in the role of Non-physician care providers in geriatric health care settings at present.

By developing the categorical approach for the selection of keywords, the search aimed at identifying the studies related to geriatric education, stakeholders' engagement, and healthcare networking in Greece. Key terms used included:

- "Geriatric education in Greece"
- "Non-physician stakeholders in healthcare"
- "Geriatric care networking"
- "Inter-professional collaboration in geriatrics"
- "Social impact of geriatric initiatives"
- "Nurses and Geriatric Medicine Greece"
- "Caregivers' role in geriatric care Greece"
- "Education in nursing homes"
- "Long-term care facilities educational initiatives"

These terms were used alternately in connection with the selected databases, which allowed using Boolean operators (AND or OR). The adopted keywords complemented each other in an attempt to achieve maximum coverage of the topic while at the same time filtering out unwanted results of the literature search, which was pertinent to a focus on non-physician stakeholders in geriatric education.

Studies were included based on a priori-defined criteria and the method of study selection was further guided by the PRISMA framework checklist. The process involved the following steps:

- **Initial Screening by Title**: MeSH and free text searches were performed using keywords and date filters; the studies were filtered according to the titles only. Titles were screened to guarantee that only papers, that had links to geriatric education, non-physician stakeholders, and healthcare networking, were considered.
- **Abstract Review**: Those that met the title screening, then went through an abstract review. Abstracts were used to confirm the subject matter relevant to the collection of data that was primary to the Greek healthcare context or any context where geriatric education sites in the study were located in other parts of Europe. This step also attempted to ensure that studies met the inclusion criteria thus targeting primary research most pertinent to the subject under discussion.
- **Full-Text Review:** In the instances where the title and abstract indicated inclusion, the articles were subjected to full-text search and review to assess the depth of detail. Only reviewing the full texts of the studies allowed reconsidering them as giving more tangible information and ideas about non-physician stakeholders and their networking in geriatric education.
- **Duplicate Identification**: While reviewing the data, repetition was noted and all such records were removed. Since some of the articles could be indexed in more than one database, duplication was eliminated formally to eliminate repetition. This made possible the uniqueness of each study in the final dataset.
- **Quality Assessment**: As per the recommendation set in the PRISMA guidelines, a quality assessment was conducted on each study which comprised the final analysis. Data sources including research method, study sample, focus, and the credibility of results were considered. This quality check helped to strengthen the reliability of the study because all claims and conclusions made therein are derived from reliable data.

From the above process, 45 article sources were identified through a search using the algorithm mentioned above, and 13 were then removed because they were identified within more than one bibliographic database. Subsequently, 23 articles were eliminated

according to the cut-off criteria, and nine articles formed the base of this review. The screening of literature is depicted in the flowchart below in Figure 1.

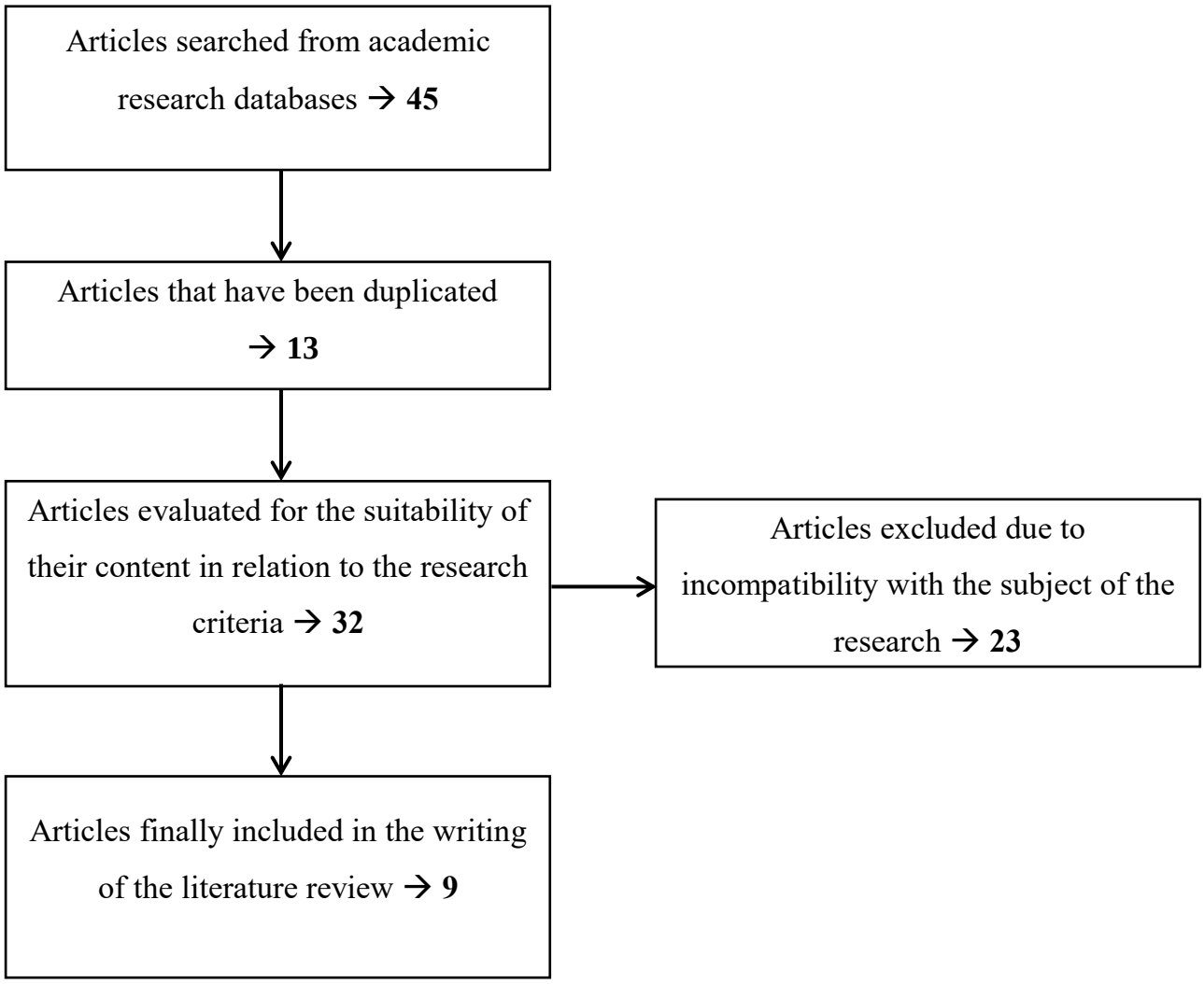

Figure 1. PRISMA Review article flow chart.

5. Results

Table 1 below gives a snapshot of the systematic literature review that was conducted and involved the 9 studies that were reviewed. The presentation of the table is succeeded by a separate analysis of each of the studies.

Table 1 Summary of the 9 studies included in the systematic literature review

Authors - Year	Purpose of Study	Study Sample	Methodology & Tools	Results - Conclusions
Duckett et al. (2015)	To assess the efficacy of academic detailing in improving geriatric knowledge and self-efficacy among medical residents.	100 internal medicine residents in both outpatient and inpatient settings.	Mixed methods: Didactic lectures, academic detailing sheets, pre/post-intervention tests on knowledge and self-efficacy.	Academic detailing improved knowledge and self-efficacy in geriatric care, proving to be a viable teaching method in time-constrained settings.
Savas et al. (2024)	To develop a stakeholder engagement model to promote geriatric medicine across Europe, focusing on countries with emerging geriatric care needs.	24 stakeholders from 14 countries, including healthcare and policy representatives.	Literature review, expert discussions, online stakeholder meetings; framework developed across micro, meso, and macro levels.	Developed a multi-level stakeholder framework, supporting geriatric education adaptation to local contexts and fostering interprofessional collaboration.
Fisk et al. (2024)	To evaluate and refine the EPA framework for Canadian geriatric residency programs.	24 stakeholders across five groups (faculty, residents, administrators, allied health professionals, and patients).	Qualitative focus groups, thematic coding.	Identified the need for EPA refinement to emphasize social accountability, collaboration, and patient advocacy, recommending multi-stakeholder feedback in future revisions.
Bates et al. (2019)	To explore the roles of geriatricians in a constrained healthcare system and how to	21 geriatricians, researchers, and policymakers.	Semi-structured qualitative interviews and thematic coding.	Emphasized geriatricians as "meta-disciplinarians" who educate non-specialists; value-

	maximize their impact.			based, team-centered care maximizes patient outcomes.
Fisk (2022)	To assess the effectiveness of EPA frameworks in geriatric residency programs.	30 stakeholders (faculty, residents, administrators, healthcare professionals, patients).	Focus groups with semi-structured interviews, and NVivo coding for thematic analysis.	Stakeholders highlighted the need for refined EPAs to emphasize teamwork, cultural sensitivity, and social accountability for comprehensive geriatric care.
Malcolm et al. (2017)	To prepare healthcare providers for high-quality geriatric care through an academic-practice model.	Interprofessional teams including nursing, medicine, dentistry, and more, with patients at high ED use risk.	Initial training, in-home comprehensive assessments, and outcome evaluation on patient health metrics.	Reduced emergency visits, improved care coordination, and demonstrated the effectiveness of interprofessional geriatric education.
Pinheiro et al. (2015)	To advance geriatrics education through faculty development for clinician-educators.	83 faculty from 52 U.S. institutions across multiple specialties.	Mini-fellowship program with self-efficacy surveys and follow-up mentoring for curriculum development.	Enhanced self-efficacy in geriatrics curriculum design, supporting expanding geriatrics education and interprofessional care training.
Ford et al. (2018)	To provide rural healthcare providers with geriatrics-focused CE through a web-based platform.	1,358 healthcare providers from rural and urban settings in the Deep South.	Development and distribution of 20 i-GEM modules over 3 years, tracking completion rates and participant demographics.	Rural providers are highly engaged in geriatrics CE, indicating demand for online modules to enhance rural geriatric care quality and access.
Miller & Rosenthal (2017)	To integrate geriatrics training in specialty residency programs to improve care for aging populations.	Specialty residency directors, geriatrics faculty, and medical residents across 10 specialties.	Site visits, geriatrics curriculum development, creation of teaching toolkits; evaluation of	Successfully increased geriatrics content in specialty training and established toolkits for nationwide use,

			integration success.	enhancing geriatrics competencies in specialty care.

In this study, Duckett et al. (2015) sought to improve the knowledge of geriatric education given the challenging nature of a residency training setting using academic detailing. The authors realized that the conventional practice such as lectures can hardly captivate the attention of residents in the limited clinical times. They implemented a project called “Aging Q3” for the students which aimed at developing concise teaching on crucial geriatrics subjects followed by the ACOVE model. Eight of these topics are displayed in the following tabular form, as this framework sought to increase the level of residents’ medical knowledge, skills, and attitudes about the following 16 geriatric issues. The study involved about 100 different residents from internal medicine residency training programs of which the respondents were>from ambulatory care clinics and the in-patient units. The educational intervention included live teaching, academic detailing of high-yield topics, and topic sheets from the attending physicians. These detailing sheets were Rigi-sheets formulating short overviews and practical advice that could be easily reviewed during patient-practitioner communication. Outcome measures included knowledge and self-efficiency pre- and post-intervention among the residents. Significant enhancement in knowledge and self-efficacy in most areas was observed except the two least effective conditions; massage pressure ulcer, and blood glucose level assessment, which were rated least effective as they had somewhat fewer specific indicators compared to, for example, osteoporosis and pressure ulcer prevention. However, the difference was relatively small for such topic areas as continuity of care and therefore, some topics do not seem to be well suited to this type of teaching. Duckett et al. (2015) claimed that the use of academic detailing was efficient and effective in improving the geriatric knowledge base while not taking up residents’ clinical time. The presented approach has potential for replication in other institutional settings and is constrained by similar factors.

Savas et al. (2024) studied the necessary and relevant categorization and engagement to enhance geriatric medicine in European countries where geriatric care is in its infancy. Their study, as part of the European CA21122 (PROGRAMMING), set out to develop an understanding of how to work with stakeholders to enhance

geriatric education. Participants comprised 24 individuals from 14 countries with the variation in integration of geriatric medicine. These participants were involved in online meetings and discussions to standardize the stakeholder mapping to relevant stakeholders within the micro-meso-macro contexts inclusive of the realms of healthcare providers, policymakers, and institutions. The research incorporated a literature review together with input from specialists and data gleaned from online discussion forums. The researchers categorized stakeholders across levels: Stakeholders include the micro-level such as universities and healthcare facilities; the mid-level such as hospitals and neighborhood healthcare accord; and the top level such as ministries and international organizations. Though this model was not successful in Walmart, it was supposed to tailor geriatric education into the healthcare market and interprofessional practice. Observations made during the study showed that such a culture requires an interdisciplinary approach, particularly in countries where geriatric medicine has not yet been established as a sub-specialty. As pointed out by Savas et al. (2024) this framework would enable enhanced integration and development of geriatric education across Europe promoting the formation of better networks and policy making. On this basis, this approach can enhance the quality and availability of geriatric care to a very high degree, especially for those countries that are faced with a scarcity of resources in specialized geriatric training.

In fact, Fisk et al. (2024) wanted to assess the utility of the EPA framework for geriatric residency programs in Canada while incorporating feedback from the different stakeholders. This evaluation aimed to perform the final revision of the EPA framework regarding the social accountability element and the possibility of training in geriatric medicine. The study included 24 participants across five stakeholder groups: physician faculty, residents, health profession staff, administrators and other users of healthcare facilities and institutions, and their patients. The participants of each group engaged in an asynchronous, 90-minute focus group discussion via the Zoom app, and the discussion was audio-recorded, transcribed, and then analyzed thematically.

Self and peer review dominated the methodological approach of the study, whereby every group donated their opinion on the appraisal of the current EPA framework of strengths and weaknesses observed. Four key themes emerged: The major areas in which there is a call for change include; concerns with of scope that required to reduce the excessive detail, better operationalization of EPA assessments, increased

emphasis on IPP, and a clear emphasis on advocacy for the patients. For that reason, participants suggested that there is a need to add more EPAs specific to geriatricians, such as community health educators, trauma-sensitive care providers, and those addressing patients' social isolation. As stated by Fisk and others building an EPA framework that is triple aim, socially responsible, and built on multi-stakeholder feedback can be a challenging and gradual process but is highly needed. They suggested that stakeholders should be engaged again in the future for further modifications to meet the changing nature of Geriatric medicine as applied in the EPA framework.

The Evidence Base for the Clinical Roles of geriatricians in Dynamic Healthcare Structure: A Review Bates et al. (2019) aims to describe the opportunities for value and access to geriatric expertise within healthcare organizations, given that geriatric specialists are scarce. Overall, 21 individuals from multiple healthcare fields and geriatric expertise) from different geographic regions of the United States participated in the study. In a study that adopted a combination of structure and unstructured interviews, Bates and his team established a research agenda on the evolving geriatrician workforce, to determine how geriatricians work within teams and how organizations harness them given the presented workforce conditions to optimize treatment care for older patients adequately. The studies were based on qualitative methodology to extract meaningful messages from the interviews, applying technique of the thematic coding to reveal the participants' opinions about the roles of geriatricians and necessary changes in the system to enhance geriatrics effectively. The main findings highlighted the geriatricians as 'meta-disciplinary,' in a way that their knowledge should be applied to all facets of older patients' care even if it is being run by other practitioners. Geriatricians were frequently reported to work in teams and their main roles were described as consultants, educators, and managers with potential for leadership in the direction of care. This structure enables them to make more diverse changes in geriatric care across the older patients' care settings, particularly in those facilities with few workforce limitations of geriatric professionals. Moreover, participants underlined that geriatricians engaged non-geriatric medicine specialists and thus spread basic geriatric concepts to the whole spectrum of healthcare providers, particularly in the area of person-centered approach, management of chronic illnesses, and frailty evaluation. Bates et al. compare the geriatric care management tasks and responsibilities with their conclusion that stewardship of geriatric care within resource

constraints directly calls for Greater integration of value-based team models; geriatricians' key, scalable roles involve extending their primary clinical input by expertly addressing interdisciplinary, system-based coordinated patient care. This approach not only helps solve a geriatric workforce shortage crisis but also improves the model of care for the patients.

In this study, Fisk (2022) considered using the EPA framework in the training of geriatric residency to examine the readiness of the residents to practice geriatric care in the Can. In particular, the authors had Moyseen Kinge of the University of Manitoba's "Care of the Elderly" (CoE) program and that of the Royal College of Physicians and Surgeons of Canada's Geriatrics Specialty program. Fisk decided to involve five different stakeholder groups, including physician faculty, residents, healthcare administrators, allied healthcare professionals, and patients to obtain different views of the EPA frameworks and their usage in practice. These included 30 participants from these groups who were able to participate in the focus group held on Zoom. The approach embraced utilized qualitative research where participants were interviewed through structured questions and answers; the interview data was transcribed and coded using NVivo so that themes about EPA relevance and stakeholder expectation could be dug out. Some of the study findings concerned with the EPA structure showed that stakeholders had a positive view of it, but an understanding of some limitations, especially that of procedural clarification and interdisciplinary relationships. All the stakeholders agreed that clarifications should be made to EPA language to better mirror the real-life clinical environment, as well as improve the factors of social responsiveness. For example, the healthcare administrators and allied health professionals provided that, in the EPA framework should stress in segregated and decentralized healthcare, if possible, by various teams of workers. Also, patients themselves and their relatives mentioned that cultural responsiveness or cultural competence and patient advocacy were big priorities for older patients, which seem also to be absent from the list of priorities of the geriatric workforce. Based on her dissertation, Fisk suggested that reformulating EPA frameworks to embrace the residents' interprofessional and person-centered care model could give a tremendous boost to the resident training efficiency aimed at addressing the older patient's diverse needs. This study highlights the importance of developing geriatric EPAs that address

both medical competency and social and systemic competencies seen as critical for effective geriatric care.

In their study, Malcolm and others (2017) described the "GOT Care!" program as a proposed new cooperative model of linking the faculties of practice and practice environment to improve geriatric care with the help of more effective interprofessional education and practice. The objective of the study was to help healthcare providers be ready to ensure optimally integrated quality care to geriatric patients with multiple comorbidities – an issue of concern in America where there are insufficient qualified workers in the geriatric field. It was conducted among the students and faculty with various health professions backgrounds; nursing, medicine, dentistry, pharmacy, physiotherapy, public health, and social work students and faculty from a large research university where all students are admitted as freshmen. These participants worked with the help of the GOT Care! Program and with a local health system organization that selected older individuals with conditions that often led them to emergency departments. It consisted of a two-day initial face-to-face training augmented with team-based in-home comprehensive geriatric assessments for factors that may contribute to high use of the emergency department. The tools used in the research by the program for the team members were qualitative feedback while the program was also designed to have outcome measures of the patients' health. They used Geriatric Nurse Navigators that played a huge role in the program and served to coordinate the management of chronic diseases and minimize risks of re-hospitalizations. It also showed positive results regarding performance where the number of avoidable RAMEDs was decreased and better cooperation with the primary physicians and other community agencies. Based on the conclusion of Malcolm et al. academic-practice models such as GOT Care! can enhance the quality of geriatric care sustainably through interprofessional collaboration and direct patient engagement and can serve as an ideal model to improve geriatric education as well as outcomes in the future.

The study by Pinheiro et al. on the development of geriatrics by a faculty development program was undertaken more among clinician-educators, especially those at Duke University. The study was intended to help address the scarcity of well-trained geriatrics educators who can train other healthcare professionals about the changes necessary to adapt to a healthcare setting for older clients. In this mini-fellowship program, 83 faculty members from 52 institutions in the United States

volunteered and participated in one-week intensive training on campus and one-year mentorship. This study involved geriatric specialists as well as other specialists who are not geriatricians and practice in fields that include internal and family medicine, surgery, and psychiatry. Capitation participants developed geriatric educational curricula, introduced in their organizations to increase geriatrics instruction across disciplines. The philosophy of the study was based on a combination of both qualitative and quantitative methods that involved questionnaires administered before and after the program, and reports after six and twelve months. It is these tools that gauged the confidence of the participants on matters concerning curriculum, use of principles of adult learning, and the implementation of an educational program. Results showed that those who completed the program utilized in the study had enhanced levels of self-efficacy, especially in the development and implementation of curricula focused on geriatrics education and the incorporation of principles of adult learning. Participants identified long-term benefits: for instance, the development of geriatrics education programs in each participant's institution was achieved and/or boosted. Pinheiro et al. established that an informed geriatrics workforce and improvable education strategies can only be developed with the help of faculty development programs as they enable clinicians to focus on delivering effective training concerning the demographic.

To achieve the objective of their study, Ford et al. (2018) worked toward enhancing the availability of geriatrics-focused continuing education to the healthcare practitioners practicing in rural areas through the implementation of web-based interprofessional geriatrics-focused education modules that are in short, i-GEMS. Given the scarcity of educational material especially for the practicing professionals located in rural settings, the study endeavored to provide high-quality CE that can improve the management of older adults living in these regions. Self-administered questionnaires were completed by more than 1358 participants among which 630 were physicians, 658 nurses, 63 occupational therapists, 12 social workers, and other healthcare professionals not involved in the above-mentioned specialties. The participants were recruited through the Deep South CME Network; a point of contact for delivery of CME to professionals in both rural and urban America. The kind of research that was done involves the creation of 20 i-GEM modules spread over three years, which focus on many areas regarding geriatric care. They incorporated cases throughout the modules to keep learners participative and to guarantee that the material

was directly relevant to rural practice. Finally, the completion rates of the module as well as the information on the participants' demographic data, geographic location, and overall use of the modules were followed. The study showed considerable interaction with the modules; providers in the rural/MDU and non-geriatric settings reported the most interaction due to the scarcity of Geriatric CE opportunities available. One of the most important results was the module 'Hypertension in Elderly' which was completed by the greatest number of learners proving that there is a need for material specific to the conditions of older patients. Ford et al. identified that geriatrics-focused CE education on the Internet is a feasible strategy to increase the knowledge and skills of rural providers and thus comprehensiveness of care for older patients in shortage areas. As such, they called for enhanced continued development of web-based learning strategies to address knowledge deficits in geriatric care, and for faculty development to facilitate collaboration between disciplines from a distance.

Miller and Rosenthal (2017) identified the current need for geriatrics training for surgical and specialty medical residents and provided comprehensive information about the GSR (Geriatric Specialty Residency) program. Because of the demographic bulge towards geriatrics, GSR considered specialty residents in every field like anesthesiology, emergency medicine, surgery, physical medicine, etc. to deliver good geriatrics care through the acquisition of geriatrics competency. For over two decades, the American Geriatrics Society (AGS) in collaboration with the John A. Hartford Foundation and other key collaborators has supported this effort. The program involved ninety-one residency programs through the effort with ten specialties each of which developed geriatrics-specific curricular parts. The study participants were specialty residency program directors, Geriatrics faculty, and Medical Residents in training. The methodology involved place visits, geriatrics curriculum development, and the development of Geriatrics teaching tool-kits based on the need analysis of every specialty. Outcome measures were based on the impact of competence in geriatrics content for integration with residency training programs and enhancement of leadership in the same among specialty faculty. Learning objectives met included: targeted presentation of geriatrics content reveal and increased in number across all specialties participating and the creation of the educational toolkits which are available to other programs across the country. Finally, Miller and Rosenthal argued that minimization of the gap for geriatrics training among specialists was feasible through the use of the GSR

initiative to enhance the demand for older adults in the future. This led them to support funding and the continuation of growth to be able to cater to the requirements of caring for aged patients in numerous medical fields.

6. Discussion

The conclusions of this study call for the increased involvement of non-physician stakeholders in geriatric education and health care delivery in Greece, this need has been brought about by the aging population of the nation, and the problems that accompany it. Nurses, social workers, and policymakers serve as connectors between the gaps and, as found in this literature review and presented in the PROGRAMMING CA21122, ensure the needs of older patients are met through interdisciplinary approaches. The results support other studies that have noted the important involvement of non-physician caregivers in geriatric care, especially in countries where geriatrics is not as established. According to Grundy et al. (2013) and Fisher (2019), nurses and social workers are best placed to address all the needs of the patient since they have an extensive list of health needs that require attention. This study adds that apart from patient-oriented tasks, non-physician stakeholders participate in advocacy for patients and create age-inclusive policies. These professionals essentially work to help facilitate more adequate care and break the bias towards aging – a factor that plays a large role in countering the ageist stereotypes stated in Sissouras et al. (2019).

Nonetheless, due to their significance, these stakeholders can only be partially integrated into Greece's geriatric care, as Economou et al. (2017) rightly noted that within the Greek context, the healthcare system is still predominantly the acute care type, thus restricting the possibilities necessary to apply elements relating to the preventive as well as long term care as recognized in geriatric settings. This work also outlines that regardless of progression by other non-physician stakeholders in geriatric healthcare, there is inadequate specialized backing from the national healthcare and educational systems. The improvement of the engagement of policymakers could overcome these barriers through the prioritization and subsequent financing of interdisciplinary training programs, as numerous others, including Pappa et al. (2013), study on the systematic shortcomings of geriatric training.

The literature review articulated the fact that aging is characterized by several specific challenges including multimorbidity, frailty, and cognitive decline which require geriatric training for all healthcare personnel ending with physicians. The findings of this study are consistent with these arguments pointing to the need to adopt education interventions targeted at non-physician stakeholders to enhance the competencies of healthcare providers in the care of clientele with chronic and

degenerative diseases in older patients. For example, results from Pinheiro et al. (2015) showed that developing a series of focused training for the clinician-educators results in enhanced confidence and capacity dealing with curricula with a geriatrics focus hence improving overall geriatric educational programs.

Overall, non-physician stakeholders' unique roles and obligations require tailored strategies in their educational and training initiatives. Nurses necessitate comprehensive training in clinical geriatrics, emphasizing chronic disease management, medication adherence under collaboration with specialized pharmacists, and end-of-life care. Conversely, social workers derive greater advantages from initiatives that focus on the social determinants of health, resource navigation, and the psychosocial dimensions of aging. Comparably, it is essential for caregivers, whether formal or informal, to receive targeted training in practical skills related to daily living activities, to develop effective communication strategies for interacting with patients facing cognitive decline, and to acquire coping mechanisms to address caregiver stress.

Furthermore, healthcare administrators must prioritize planning, resource distribution, and the execution of age-friendly policies within their organizations, while policymakers need to be informed about the creation and enforcement of regulations pertaining to geriatric care. Customizing training materials for these diverse roles guarantees that each group is prepared to meet the complex requirements of older patients proficiently.

In addition, the evidence drawn from Fisk (2022) and Savas et al. (2024) also stressed the importance of the ongoing engagement of the stakeholders in the design and evolution of the geriatric training paradigms. As with these studies, the present research indicates the need to maintain constant revisions to geriatric training frameworks, with practice experiences from practicing professionals. This is in tune with the general objective of the CA21122, to establish and enhance geriatric learning in various healthcare settings. However, more attention should be paid to institutional support to provide the necessary training for non-physician stakeholders in Greece. For these frameworks to be implemented, there is a need for system changes that recognize geriatric education as a system-level intervention for the improvement of the healthcare of older patients.

One of the most pressing challenges in the Greek, and not only, context is the scarcity of trained caregivers for older adults. Caregivers often acquire their training

through non-formal channels such as NGOs, since the official geriatric studies offered by the Greek Open University, the National & Kapodistrian University, and the Aristotle University of Thessaloniki refer to graduate healthcare or healthcare-related professionals and students. In light of these opportunities, the current supply of trained professionals on a community level is inadequate to satisfy the increasing demand in both home-based and institutional environments of open or closed care, such as elderly care units, day-centers, etc. The current shortage has a direct effect on the quality of care delivered to elderly individuals, imposing a considerable strain on other healthcare professionals, which may lead to a reduction in the overall efficiency and effectiveness of their work.

To tackle this issue, it is crucial to investigate approaches that enhance the appeal and sustainability of caregiving as a profession. Initially, it is essential to prioritize the design and implementation of specialized training programs that are specifically tailored to meet the needs of caregivers, firstly the formal and then the informal ones. These programs should be accessible, flexible, and aligned with the practical demands of caregiving roles. Training should include modules on elder care techniques, communication with patients suffering from cognitive impairments, and stress management. Achieving certification upon completion would significantly bolster professional credibility and elevate the perceived value of the role. Second, improving working conditions for caregivers is paramount. Implementing competitive salary structures, facilitating pathways for career progression, and establishing robust support systems, including counseling and peer networks, can enhance job satisfaction and improve retention rates. Alongside, the incorporation of caregiving into the formal healthcare framework, by acknowledging it as a regulated profession, has the potential to elevate its status and draw a greater number of individuals into this sector. The endeavor to establish and advance such programs ought to be comprehensive and involve multiple sectors. Government entities, such as the Ministry of Health, the Ministry of Education, and the Ministry of Labor must take a leading role in funding and overseeing these initiatives. Collaboration with academic institutions, official caregiving institutions, and NGOs is crucial for curriculum development and delivery. Moreover, elderly care units alongside private sector stakeholders have the potential to enhance the system by providing practical training placements and incentives for caregivers. Public awareness campaigns that emphasize the societal value and personal

fulfillment linked to caregiving could significantly influence perceptions and motivate more individuals to consider this career path. Future research ought to explore the particular elements that dissuade individuals from pursuing a career in caregiving and ascertain the most effective incentives within the Greek context. Additionally, longitudinal studies could assess the impact of improved training and working conditions on caregiver retention, job performance, and the overall quality of elderly care services. By tackling these challenges, Greece can cultivate a more resilient and sustainable workforce to address the demands of its aging population, ultimately enhancing the quality of care and improving efficiency within its healthcare system.

The second important theme defined in this study is the need for a change of attitude toward older patients, including the theoretical foundation of this work. Greece, in this case, traditional attitudes towards aging depict older persons as vulnerable dependents whose status only fosters unfavorable expectations and thus undermines the idea of age-neutral and supportive policies for older patients (Sissouras et al., 2019). These concerns are reflected in this study as non-physician stakeholders, including social workers and community leaders, play the role of busting such misconceptions and replacing them with active aging narratives. However, as evidenced by Hesselink and colleagues (2019), there is little evidence that simple campaigns will make a profound impact, and therefore substance in changing the attitude of society must come from practical preventive strategies in public health and political encouragement of the process of healthy aging.

This present study indicates that the true effect of COST Action CA21122 in Greece will be determined by the specific efforts taken in cultures to ensure that older populations are valued. Awareness-raising initiatives, non-governmental organization-funded projects, and changes in anti-discrimination legislation all form part of the process of reorientation. The “GOT Care!” program discussed by Malcolm et al. (2017) shows that education in aging can make a massive difference in enhancing the quality of life of older people, including the healthcare facilities. These findings highlighted the need to come up with similar types of strategies in Greece as an effort to demystify stigma and ensure that older patients are fully involved in society.

This study also highlights that to attain the goals of geriatric healthcare, there is a need for interprofessional collaboration, a factor that is supported by Lamnisos et al.

(2021) and Bardach & Rowles (2012). For geriatric care to be effective, care teams must be composed of several players from distinct disciplines since older patients present with many interconnected needs. According to Miller & Rosenthal (2017), interdisciplinary training and role-based geriatric competencies increase coordination of care and increase patient benefits. Similarly, the results of this research indicate that non-physician stakeholders in Greece support collaborative practice as one of the major ways of closing knowledge and resource gaps in the care of older patients.

Although research evidence has highlighted the advantages of teamwork, more recent evidence indicates that there are still trends that prevent effective interprofessional integration in Greece. These are the systematic barriers and constraints in the gero-best practice organization including; patterns of resource distribution or distribution of roles and responsibilities, lack of clarity on the role of interprofessional working, and clinical practice guidelines for interprofessional care in geriatrics. Interestingly, older patients' care units, are important points of service delivery and geriatric practice, the systematic review carried out according to the PRISMA specifications did not reveal a sufficient number of studies focusing on the training initiatives of the staff of these structures in Greece or countries with similar characteristics. To meet these barriers, it is necessary the implement politics that encourage practices that foster collaboration among healthcare professionals and the sharing of responsibilities. This corresponds to the guidance provided by the European CA21122 that aims at facilitating networked and protocol-based geriatric practice. Increased governmental support and commitment as well as the subsequent improved resource management may promote the development of such partnership models which may enhance the delivery of care for older adults at every stage of the continuum.

7. Conclusion

In conclusion, this research underlines the role of non-physician stakeholders in furthering the field of geriatrics in Greece and introduces the idea of a coordinated framework that includes these roles. As previous research and recent literature show, there is an increased interest in fostering interdisciplinary and collaborative practices: such models shall continue to be supported by policies in Greece, even at an infant stage yet, and there must be continuing cultural and institutional changes. Thus, if the Greek Ministry of Health aligns the goals of CA21122 with the existing local structural changes in geriatric education, it will be possible not only to prepare for the growth of

the proportion of older patients in the population in terms of increasing the competence of specialists but also to improve its perception and acceptance on an interpersonal level. In closing, the extension of geriatric education and interprofessional practice appears to be vital to responding to the needs of the Greek older population. The existing research supports the need for stakeholder engagement, policy changes, and community awareness as basic tenets that can help keep pace with the progressive changes in care delivery for older patients to prepare Greece to face social change.

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